

We Claim:

1. A non-absorbable monofilament sterile surgical suture or ligature comprising a polymeric block (a) consisting of a polyalkylene ether of the formula $\left(\text{ORCH}_2\right)_n \text{OCR}_2\overset{\text{O}}{\overset{\text{O}}{\text{C}}}$ having a number average molecular weight of from about 500-3000 wherein R is a straight or branched chain alkyl group of from about 1 to 9 carbon atoms and R_2 is 1,4-phenylene or cyclohexylene and n is the number of repeating units and is defined by R and R_2 and R_1 in polymeric block (B), and by the total molecular weight of the copolymer; and a polymeric block (B) which is the reaction product of an aromatic dicarboxylic acid or a cycloaliphatic acid, and a short chain aliphatic or cycloaliphatic diol, having the formula $-\text{OR}_1\text{CH}_2\overset{\text{O}}{\overset{\text{O}}{\text{C}}}\text{OCR}_2\text{C}-$ wherein R_1 is a straight or branched chain alkyl group of from about 1 to 9 carbon atoms; and R_2 is 1,4-phenylene or cyclohexylene, said block (B) comprising from about 30% to 95% of said copolymer, and said copolymer having a number average molecular weight of from about 25,000 to 30,000, such that said suture has good flexibility, good fatigue life and high tensile strength.

2. The surgical suture or ligature of claim 1, wherein the polymeric block (B) comprises from about 50% to 85% of the copolymer.

3. The surgical suture or ligature of claim 1, wherein the polymeric block (B) comprises from about 55% to 80% of the copolymer.

4. The surgical suture or ligature of claim 1, wherein R is selected from the group consisting of ethylene, propylene or butylene.

5. The surgical suture or ligature of claim 4, wherein R is butylene.

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6. The surgical suture or ligature of Claim 1 having an attached needle.

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1037. A surgical suture package comprising a sterile enclosure and therein a non-absorbable monofilament sterile surgical suture or ligature comprising a polymeric block (A) consisting of a polyalkylene ether of the formula $\left(\text{ORCH}_2 \right)_n \text{OCR}_2\text{C}$ having a number average molecular weight of from about 500-3000 wherein R is a straight or branched chain alkyl group of from about 1 to 9 carbon atoms and R_2 is 1,4-phenylene or cyclohexyl-ene and n is the number of repeating units and is defined by R and R_2 and R_1 in polymeric block (B), and by the total molecular weight of the copolymer; and a polymeric block (B) which is the reaction product of an aromatic dicarboxylic acid or a cycloaliphatic acid, and a short chain aliphatic or cycloaliphatic diol having the formula $-\text{OR}_1\text{CH}_2\text{OCR}_2\text{C}-$ wherein R_1 is a straight or branched chain alkyl group of from about 1 to 9 carbon atoms; and R_2 is 1,4-phenylene or cyclohexylene, said block (B) comprising from about 30% to 95% of said copolymer, and said copolymer having a number average molecular weight of from about 25,000 to 30,000, such that said suture has good flexibility, good fatigue life and high tensile strength.

7. The surgical suture package of claim 6 wherein R is butylene.

and

15